

REMARKS

In response to an election of species requirement among Species A (Fig. 2), B (Fig. 3.) and C (Fig. 4), applicant elected Species A, with associated claims 19, 20, 21, 24, 28, 29 and 31.

In numbered paragraph 1 of the Official Action, the examiner disagrees with applicant's reliance on the term "purified suspension" to distinguish from a wastewater purification system or process. At the examiner's suggestion, applicant has positively recited "a source of unpurified suspension" and linked this to the other recitations in the claims. Moreover, the amendments state that the feed suspension has recoverable solids, and that the accepts line is a suspension accepts line, i.e., the accepts line contains a purified suspension of recoverable solids. The impurities are distinct from these solids, which solids would typically be pulp fibers. A wastewater treatment facility would not have solids in suspension in the accepts line.

The examiner also states in that first paragraph that claim 31 has been withdrawn as directed to a method. Claim 30 is directed to a method, whereas claim 31 is directed to an aeration plant. The cover sheet of the Official Action correctly identifies claim 30 as withdrawn, and claim 31 as examined. Claim 31 has been amended in a manner similar to claim 19.

In numbered paragraph 2, objection was made to Figure 1. Applicant encloses a replacement sheet with Figure 1 labeled as "prior art".

Independent claim 19 stands rejected under 35 USC §102 over numerous references. The amendments discussed above should now avoid all such anticipation rejections. Claim 19 is also patentable under 35 USC §103, for the reasons discussed below with respect to independent claim 20.

Independent claim 20 and claims 21, 24, 29, and 31 are rejected under 35 USC §103(a) as being unpatentable over DE '336 in view of Pfalzer (Tappi-1982). The examiner asserts that DE '336 includes cells 5' and 5" which form a flotation stage together and which include a loop of flow which eventually goes to washer 10 and then a portion is returned back to the flotation stage.

Applicant stresses that DE '336 does not disclose a flotation stage with an internal flow loop in a liquid line for a portion of the impure fluid flow. The flow in DE '336 starts from the froth chute 6' and not from stage 5', 5" and ends in a mixing chamber 3, which is connected with a different stage or cell 5. Therefore neither a loop within one stage nor an internal loop is disclosed. Furthermore, the flow consists mainly of froth and not of impure fluid flow, and parts of the line are not a liquid line, since froth is not a liquid.

Since even a combination of DE '336 and Pfalzer (1982) does not disclose all the features of independent claims 19 and 20 as amended, and there is no basis of record as to why one of ordinary skill in the art would combine them and add the additional features recited in these claims, claims 19 and 20 should be allowed.

Applicant comments further concerning the other cited references, to highlight differences relative to the claimed invention.

DE '581 discloses a process and a device for the production of high purity fibrous suspensions from waste paper. The washing and dewatering unit 18 is located after the flotation unit in the accept flow of the flotation unit. The washer unit is located after the flotation unit and is not part of it. Applicant's invention discloses an aeration plant comprising a washer for removing some of the impurities in at least a portion of the impure fluid flow of the aeration plant and this impure fluid flow enters again the flotation unit. The washer is part of the floatation unit (aeration plant), it receives the impure fluid flow from the flotation unit, removes some of these impurities and returns the fluid flow back to the floatation unit.

Pfalzer (1980) discloses a deinking process. Figure 1 is a comparison of washing and flotation, wherein the washing process shows also a postcleaning of washing filtrate with a modified flotation cell. Therefore Pfalzer discloses a washing unit comprising a modified flotation unit not an aeration plant. In Pfalzer (1980) Fig. 1 left side, only the filtrate of the washer is passed through the modified flotation unit but not the impure fluid flow according to applicant's invention.

GB '186 discloses a process and apparatus for removing ash from stock suspensions. This embodiment is very similar to DE '581, in that the washer is located in the accept flow. GB '186 states "after the flotation appliance the stock is cleansed and

sorted again in a hydrocyclone 6 and a pressure-sorter 7, before all the stock arrives in a two-stage washing appliance 8 for the ash-removing process". Therefore the washer is not part of the aerating plant.

Matzke '806 discloses a method of removing fine contaminants from used paper fiber material. Here the washer 23 is located before the flotation cells 24 and 26.

Pfalzer (1982) discloses a flotation cell arrangement for deinking involving aeration injection into the flotation cell, but Pfalzer does not disclose a floatation stage comprising at least one cell with an internal flow loop. The suspension in Pfalzer (1982) is pumped from one cell into the next cell.

For these reasons, applicant believes all claims are allowable.

Respectfully submitted,
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